AMENDMENTS TO THE CLAIMS:

This listing of the claims will replace all prior versions, and listings, of the claims in this application:

Listing of Claims:

1. (Previously Presented) A method for decoding compressed video data comprising:

transforming information about the spatial frequency distribution of a video data block into pixel values;

generating, prior to said transformation, a first reference value representing the variations in information about spatial frequency distribution within the block;

generating, after said transformation, a second reference value representing the abruptness of variation in certain information between the block and at least one previously transformed video data block from a same frame as the block;

comparing the first reference value to a certain first threshold value and the second reference value to a certain predetermined second threshold value; and

detecting an error in the block, as a response to either of the first and second reference values being greater than the first and respectively the second threshold value.

2. (Previously Presented) A method according to claim 1 comprising:

generating, after decoding a number of blocks forming a macroblock, a third reference value representing the abruptness of variations in certain information within the macroblock;

comparing the third reference value to a certain third threshold value;

detecting an error in the macroblock, as a response to the third reference value being greater than the third threshold value.

3. (Previously Presented) A method according to claim 1 comprising:

generating, after decoding a number of blocks forming a macroblock, a third reference value representing the abruptness of variations in certain information between the macroblock and at least one previously decoded macroblock;

comparing the third reference value to a certain third threshold value; and

detecting an error in the macroblock, as a response to the third reference value being greater than the third threshold value.

4. (Previously Presented) A method according to claim 1 comprising:

initiating, as a response to the detected error, an error concealment process.

5. (Previously Presented) A method according to claim 1, wherein said transformation step is an inverse DCT transformation of the block, and the method comprises:

dividing DCT coefficients of the block into at least two parts, wherein the coefficients of the first part are associated with higher frequencies than the coefficients of the second part;

generating a first reference value from the coefficients of the first part; and

generating a first threshold value from the coefficients of a set of coefficients not belonging to the first part.

6. (Previously Presented) A method for decoding compressed video data comprising:

transforming information about the spatial frequency distribution of a video data block into pixel values;

generating, prior to said transformation, a first reference value representing the variations in information about spatial frequency distribution within the block;

generating, after said transformation, a second reference value representing the abruptness of variation in certain information between the block and at least one previously transformed video data block from a same frame as the block;

comparing the first reference value to a certain first threshold value and the second reference value to a certain predetermined second threshold value;

detecting an error in the block, as a response to either of the first and second reference values being greater than the first and respectively the second threshold value;

dividing DCT coefficients of the block into at least two parts, wherein the coefficients of the first part are associated with higher frequencies than the coefficients of the second part;

generating a first reference value from the coefficients of the first part;

generating a first threshold value from the coefficients of a set of coefficients not belonging to the first part;

forming at least two sets of DCT coefficients from the coefficients not belonging to the first part;

generating a first reference value for each formed set of DCT coefficients;

generating a corresponding first threshold value for each formed set of DCT coefficients;

comparing, for each of the sets, the first reference value of the set with the first threshold value of the set; and

detecting an error in the block, as a response to any of the first reference values of the set being greater than the corresponding first threshold value of the set.

7. (Original) A method according to claim 6, wherein said first reference values are the greatest absolute coefficient values of a set of DCT coefficients, and the first threshold values comprise a predefined constant value added, as a response to the number of non-zero coefficient values being greater than one, to the absolute sum of the coefficient values excluding said greatest absolute coefficient value.

8. (Previously Presented) A method according to claim 1 comprising:

generating a second reference value from the difference or differences between the DC components of the current block and of at least one previously transformed block.

9. (Previously Presented) A method according to claim 1, wherein said generation of the second reference value comprises:

dividing each block into a certain number of sub-blocks;

calculating the average of the pixel values for the sub-blocks; and

generating a second reference value from the difference between the averaged pixel values of the current sub-block and at least another neighbouring sub-block.

10. (Previously Presented) A method for decoding compressed video data comprising:

transforming information about the spatial frequency distribution of a video data block into pixel values;

generating, prior to said transformation, a first reference value representing the variations in information about spatial frequency distribution within the block;

generating, after said transformation, a second reference value representing the abruptness of variation in certain information between the block and at least one previously transformed video data block from a same frame as the block;

comparing the first reference value to a certain first threshold value and the second reference value to a certain predetermined second threshold value;

detecting an error in the block, as a response to either of the first and second reference values being greater than the first and respectively the second threshold value;

wherein each video data block comprises a number of pixels arranged in rows, and boundary pixels are the pixels closest to the boundary between two blocks, wherein said generation of the second reference value comprises, for a boundary of a block:

calculating a first difference value representing the difference between the pixel value of the boundary pixel and the pixel value of the closest boundary pixel in the same row of the adjacent block;

calculating extrapolated boundary pixel values from the boundary pixels and the closest pixel in the same row of the same block;

calculating a second difference value comprising the difference between the extrapolated boundary pixel values;

comparing the first and second difference values;

adding the smaller of the first and the second values to a sum of differences calculated in the same way for all pixels in the boundary of the block; and

generating, for each block boundary, a second reference value from said sum of differences of all pixels in the boundary.

11. (Previously Presented) A method according to claim 2 comprising:

dividing the AC coefficients of the macroblock into groups of values of at least U-blocks, V-blocks and Y-blocks;

generating sets of values representing the variation in the AC values of U-, V-, and Y-blocks in the macroblock;

generating a third reference value from the magnitude of variations in U- and V-components; and

generating a third threshold value from the magnitude of variations in the corresponding Y-component.

12. (Previously Presented) A method according to claim 3 comprising:

generating the third reference value from the differences between the DC values of U-, and V-blocks in the macroblock and in at least one previously decoded macroblock; and

generating a third threshold value from the differences between the DC values of Y-blocks in the macroblock and in at least one previously decoded macroblock.

13. (Previously Presented) A method according to claim 2 comprising:

generating the third reference value from the absolute sum of values of AC coefficients in a number of blocks in a macroblock; and

generating the third threshold value from the estimated sum of values of AC coefficients needed to account for the variation in DC coefficients in said number of blocks.

14. (Previously Presented) A method according to claim 2 comprising:

marking the blocks as suspicious, as a response to either of the first and second reference values being greater than the first and respectively the second threshold value; and

initiating further detection for macroblocks comprising at least one block marked as suspicious.

15. (Previously Presented) A device for decoding compressed video data, comprising:

means for transforming information about the spatial frequency distribution of a video data block into pixel values;

means for generating, prior to said transformation, a first reference value representing the variations in information about spatial frequency distribution within the block;

means for generating, after said transformation, a second reference value representing the abruptness of variation in certain information between the block and at least one previously transformed video data block from a same frame as the block;

means for comparing the first reference value to a certain first threshold value and the second reference value to a certain predetermined second threshold value; and

means for detecting an error in the block, as a response to either of the first and second reference values being greater than the first and respectively the second threshold value.

16. (Original) A device according to claim 15 comprising:

means for generating, after decoding a number of blocks forming a macroblock, a third reference value representing the abruptness of variations in certain information within the macroblock;

means for comparing the third reference value to a certain third threshold value; and

means for detecting an error in the macroblock, as a response to the third reference value being greater than the third threshold value.

17. (Original) A device according to claim 15 comprising means for initiating, as a response to the detected error, an error concealment process.

18. (Original) A device according to claim 15 comprising a mobile terminal.

19. (Previously Presented) A method for decoding compressed video pictures, each picture having a plurality of video data blocks, comprising transforming DCT coefficients that provide information about the spatial frequency distribution of a video data block of a picture into pixel values, the DCT coefficients of the video data block including a DC coefficient and a group of AC coefficients, the method further comprising:

performing a first test for detecting an error in a video data block of the picture, the first test comprising:

dividing the DCT coefficients of the video data block into at least a low-frequency group and a high-frequency group;

generating, prior to said transformation, a first reference value representing the variations in information about spatial frequency distribution within one of the groups of DCT coefficients of the video data block;

comparing the first reference value to a first threshold value derived from one of the groups of DCT coefficients of the block; and

detecting an error in the video data block as a response to the first reference value being greater than the first threshold value;

performing a second test for detecting an error in the video data block of the picture, the second test comprising:

generating a second reference value representing the abruptness of variation in DCT coefficient information or pixel value information between the block and at least one previously transformed video data block of the picture;

comparing the second reference value to a second predetermined threshold value; and

detecting an error in the video data block as a response to the second reference value being greater than the second predetermined threshold value.

20. (Previously Presented) A device for decoding compressed video data, comprising:

a memory configured to store at least video data blocks; and

at least one processor coupled to the memory, the at least one processor configured to transform information about the spatial frequency distribution of a video data block into pixel values and configured to generate, prior to said transformation, a first reference value representing the variations in information about spatial frequency distribution within the block, the at least one processor also configured to generate, after said transformation, a second reference value representing the abruptness of variation in certain information between the block and at least one previously transformed video data block from a same frame as the block and to compare the first reference value to a certain first threshold value and the second reference value to a certain predetermined second threshold value, the at least one processor further configured to detect an error in the block, as a response to either of the first and second reference values being greater than the first and respectively the second threshold value.

21. (Previously Presented) A device according to claim 20, wherein said transformation operation is an inverse DCT transformation of the block, and the at least one processor is further configured to divide DCT coefficients of the block into at least two parts, wherein the coefficients of the first part are associated with higher frequencies than the coefficients of the second part, and the at least one processor is configured to generate a first reference value from

the coefficients of the first part, and to generate a first threshold value from the coefficients of a set of coefficients not belonging to the first part.

22. (Previously Presented) A device according to claim 21 wherein the at least one processor is further configured to form at least two sets of DCT coefficients from the coefficients not belonging to the first part, to generate a first reference value for each formed set of DCT coefficients, to generate a corresponding first threshold value for each formed set of DCT coefficients and to compare, for each of the sets, the first reference value of the set with the first threshold value of the set, and the at least one processor is further configured to detect an error in the block, as a response to any of the first reference values of the set being greater than the corresponding first threshold value of the set.

23. (Previously Presented) A device according to claim 22, wherein said first reference values are the greatest absolute coefficient values of a set of DCT coefficients, and the first threshold values comprise a predefined constant value added, as a response to the number of non-zero coefficient values being greater than one, to the absolute sum of the coefficient values excluding said greatest absolute coefficient value.

24. (Previously Presented) A device according to claim 20, wherein each video data block comprises a number of pixels arranged in rows, and boundary pixels are the pixels closest to the boundary between two blocks, wherein said generation of the second reference value comprises, for a boundary of a block,

the at least one processor configured to calculate a first difference value representing the difference between the pixel value of the boundary pixel and the pixel value of the closest boundary pixel in the same row of the adjacent block, the at least one processor further configured to calculate extrapolated boundary pixel values from the boundary pixels and the closest pixel in the same row of the same block and to calculate a second difference value comprising the difference between the extrapolated boundary pixel values, the at least one processor additionally configured to compare the first and second difference values, to add the smaller of the first and the second values to a sum of differences calculated in the same way for

all pixels in the boundary of the block, and to generate, for each block boundary, a second reference value from said sum of differences of all pixels in the boundary.

25. (Currently Amended) A computer-readable medium embodied with computer ~~comprising~~ program instructions ~~tangible embodied thereon~~, execution of the computer program instructions resulting in operations comprising:

transforming information about the spatial frequency distribution of a video data block into pixel values;

generating, prior to said transformation, a first reference value representing the variations in information about spatial frequency distribution within the block;

generating, after said transformation, a second reference value representing the abruptness of variation in certain information between the block and at least one previously transformed video data block from a same frame as the block;

comparing the first reference value to a certain first threshold value and the second reference value to a certain predetermined second threshold value; and

detecting an error in the block, as a response to either of the first and second reference values being greater than the first and respectively the second threshold value.

26. (Previously Presented) A computer-readable medium according to claim 25, wherein said transformation operation comprises an inverse DCT transformation of the block, and the operations further include:

dividing DCT coefficients of the block into at least two parts, wherein the coefficients of the first part are associated with higher frequencies than the coefficients of the second part;

generating a first reference value from the coefficients of the first part; and

generating a first threshold value from the coefficients of a set of coefficients not belonging to the first part.

27. (Previously Presented) A computer-readable medium according to claim 26 comprising the operations of:

forming at least two sets of DCT coefficients from the coefficients not belonging to the first part;

generating a first reference value for each formed set of DCT coefficients;

generating a corresponding first threshold value for each formed set of DCT coefficients;

comparing, for each of the sets, the first reference value of the set with the first threshold value of the set; and

detecting an error in the block, as a response to any of the first reference values of the set being greater than the corresponding first threshold value of the set.

28. (Previously Presented) A computer-readable medium according to claim 27, wherein said first reference values are the greatest absolute coefficient values of a set of DCT coefficients, and the first threshold values comprise a predefined constant value added, as a response to the number of non-zero coefficient values being greater than one, to the absolute sum of the coefficient values excluding said greatest absolute coefficient value.

29. (Previously Presented) A method according to claim 25, wherein each video data block comprises a number of pixels arranged in rows, and boundary pixels are the pixels closest to the boundary between two blocks, wherein said generation of the second reference value comprises, for a boundary of a block the operations of:

calculating a first difference value representing the difference between the pixel value of the boundary pixel and the pixel value of the closest boundary pixel in the same row of the adjacent block;

calculating extrapolated boundary pixel values from the boundary pixels and the closest pixel in the same row of the same block;

calculating a second difference value comprising the difference between the extrapolated boundary pixel values;

comparing the first and second difference values;

adding the smaller of the first and the second values to a sum of differences calculated in the same way for all pixels in the boundary of the block; and

generating, for each block boundary, a second reference value from said sum of differences of all pixels in the boundary.